SUMMARY OF DOE PUBLIC WORKSHOP
SILO 3 PATH FORWARD
JUNE 16, 1997

Background

On Monday, June 16, 1997 the U.S. Department of Energy (DOE) held a public workshop from 7-9 p.m. at the Alpha Building in Harrison, Ohio. This workshop was the second in a series of public involvement activities to be held this summer to discuss the remediation of Silo 3 at the Fernald Environmental Management Project (FEMP).

The focus of the workshop was to educate stakeholders and further evaluate a select group of potentially viable treatment technologies available for the remediation of Silo 3 including:

Cement Stabilization/Solidification
Polymer (Micro) Encapsulation
Sulfur/Polymer Encapsulation
Vitrification

Attendance at Workshop

Approximately 45 people attended the workshop including representatives from the following affiliations:

--DOE
--Fluor Daniel Fernald
--U.S. EPA
--Ohio EPA
--Ohio Department of Health
--Local Residents
--J. Page Distributing
--FRESH
--Fernald Citizens Task Force
--Fernald Community Reuse Organization
--Brookhaven National Lab
--Miami University
--PRC Environmental Management Inc.

Presentations

The workshop opened with brief remarks from DOE's Public Information Director, Gary Stegner. Stegner explained the purpose of the meeting and also provided a summary of the June 3 public workshop held in Nevada with interested stakeholders associated with the Nevada Test Site. Stegner also explained this workshop is the second in a series of public involvement activities to be offered to interested stakeholders during the next few months to focus on the Silos Project path forward.

During the next part of the meeting, Don Paine, Fluor Daniel Fernald Silos Project Manager reviewed the proposed technologies being considered for the remediation of Silo 3 including:

Cement Stabilization/Solidification
Polymer (Micro) Encapsulation
Sulfur/Polymer Encapsulation
Vitrification

Next, Christine Langton, Ph.D., Westinghouse Savannah River, offered an educational presentation on each of the technologies listed above. Langton explained each of the waste treatment processes in detail and presented the advantages and disadvantages associated with each technology. Langton concluded by presenting comparisons of each technology and the following general conclusions:

All 3 waste forms can be designed to meet disposal requirements for many waste streams including Silo 3;

All 3 waste treatments can be poorly designed and result in processing, storage and disposal failure.

Next, Terry Hagen, Fluor Daniel Fernald's Director of Strategic Planning, presented an overview of the criteria used to determine the potential technological alternatives associated with the remediation of Silo 3. Hagen explained the criteria is basically divided into 3 categories including:

Threshold Criteria -- Includes overall protection of human health and the environment

Balancing Criteria --Including long-term effectiveness and permanence; reduction of toxicity, mobility, or volume through treatment implementability; short-term effectiveness; and cost

Modifying Criteria -- Including state and community acceptance

Hagen presented a comparative analysis of the alternatives associated with each of the criteria. General conclusions resulting from the comparative analysis included:

All four of the potential alternatives are protective of human health and the environment

All four alternatives can comply with identified ARAR's

The treatment technologies combined with disposal in an arid environment provide approximately equal long-term effectiveness and permanence

Work risks are higher for vitrification and encapsulation technologies because of higher operating temperatures

Transportation risks for all four alternatives are significantly below U.S. EPA guidelines

Transportation risks are lowest for vitrification due to smaller number of waste

shipments

Off gas issues are more significant for vitrification and encapsulation technologies

Cleanup time is judged to be most certain for cement stabilization as the most developed technology

All of the alternatives reduce RCRA metals mobility to below regulatory limits

None of the treatment technologies achieve a significant reduction in waste toxicity

Vitrification will realize a reduction of the treated waste

Cement Stabilization will realize a volume increase in the treated waste

Sulfur/Polymer Encapsulation and Polymer Encapsulation are expected to perform similar to cement stabilization relative to volume increase

Hagen also presented cost comparisons between the alternatives and discussed aspects associated with the administrative and technical implementability of the technologies. He specifically requested feedback from stakeholders about the preliminary information presented on the nine criteria analysis. This will be used to directly support selection of the treatment technology for Silo 3. A preferred option was not identified at the workshop; however, Hagen stated that DOE does not intend to propose vitrification for the remediation of Silo 3 primarily due to technical implementation and cost concerns associated with the implementation of vitrification for Silo 3.

Action Items

The meeting concluded with several questions/comments from stakeholders. The following action items resulted from the meeting:

Pam Dunn requested a ratio or volume of additives associated with each proposed technology (including vitrification).

Lisa Crawford requested a chart or graph by the next Silos Project public workshop that has the nine criteria listed with the four alternatives including a cleanup time line for each alternative as well as transportation issues.

Vicky Dastillung requested a separate chart comparing constituents in the off-gas in relation to health and environmental effects if particulates are released. She also requested information about how the off gas contaminants will be controlled.

Lisa Crawford also requested additional information about the chart presented at the meeting that highlighted DOE experiences with cement stabilization. Specifically she requested information on who completed the work and when the work was completed.

Next Step
These action items should be complete by the next Silos Project public workshop to be held on **July 29,** 1997.

Stakeholder Input
Feedback received from the evaluation forms highlighted the following questions/comments from stakeholders:

Are we dropping Vitrification now or is it still an alternative for the Silo 3 path forward?

Stakeholders said they liked the room set up and want it this way at future meetings

Positive comments about keeping the presentations simple despite the fact it is very technical information being presented

Question about the removal of waste from Silo 3 -- Will this come with the RFP and will it be shared -- how soon?

Request for more information from Brookhaven National Lab about their technology

Request for more information about Sulfur Polymer related to cost and volume increase (comparisons for each alternative). Lots of comments made about how this question was not addressed and needs to be before we can move forward.

Comment to forget about Vitrification and move forward with Cement Stabilization asap. Comment specifically noted that this stakeholder agrees that vitrification is overall the least acceptable alternative for Silo 3 and commented that an inordinate number of controls to enable safe operation would be necessary for vitrification. Also reminded us that vitrification has not proved itself at this point.

A transcript, presentation handouts, evaluation forms, and videotape from the June 16 Silos Project public workshop will be available within the next two weeks at DOE's Public Environmental Information Center (PEIC) located at 10845 Hamilton Cleves Highway; (513) 738-0164.